

WHAT IS CLAIMED IS:

1. A combined system for hauling a cargo, tanker or other trailer, comprising:
a single tractor having an one engine for moving itself and for pulling a single trailer, said
5 single tractor and said single *trailer* having together mounted thereon: a tank of liquid
hydrogen; a fuel cell for providing electricity to said engine; a means for mounting said tank
of liquid hydrogen to said trailer unit; and said fuel cell and said tank of liquid hydrogen each
being responsive to the operation of said engine and a fifth (5th) wheel mounted and attached
to said trailer unit.

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2. The system according to claim 1, including in addition thereto, a trailer of cargo
or a tanker trailer is attached to the fifth(5th) wheel of said trailer unit.

3. The system according to claim 1, wherein the fuel cell is a Proton Exchange
Membrane Fuel Cell.

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4. The system according to claim 1, including in addition thereto, said engine of said
tractor is an electric motor.

5. The system according to claim 1, including in addition thereto, a hydraulic pump
driven by said engine of said tractor for manipulating the output of said tank of liquid
20 hydrogen.

6. The system according to claim 1, including the addition thereto multiple electric motors to drive the tractor trailer unit to pull said trailer or tanker.

7. The system according to claim 1, wherein the hydrogen fuel and said fuel cell are attached on board said trailer unit.

5 8. The system according to claim 1, wherein the hydrogen fuel is in a gaseous form.

9. The system according to claim 1, including the means for taking electric power off said tractor trailer unit to power a load in said trailer or tanker.

10. The system according to claim 1, including the means for taking electric power off said tractor trailer unit to power a load off board of said tractor trailer unit.

10 11. A combined system for hauling a cargo, tanker or other trailer, comprising:
a single tractor having an engine for moving itself and for pulling a single trailer said single tractor and said single **trailer** having together mounted each thereon: fifth (5th) wheels, one mounted and attached to said tractor and one mounted and attached to the end of said trailer unit.

12. The system according to claim 11, including the addition thereto the engine is a hydrogen combustion engine, such as but not limited to a Wankel engine.

13. The system according to claim 11, including the addition thereto the trailer unit contains means of storing hydrogen to fuel said engine.

5 14. The system according to claim 11, including the addition of a hydrogen fuel cell to the tractor to produce electricity to drive the engine.

15. The system according to claim 13, including the addition thereto the means to transport said hydrogen to said tractor fuel cell.

10 16. The system according to claim 11, including the addition of a hydrogen fuel cell to the trailer containing the hydrogen fuel.

17. The system according to claim 16, including the means of connecting the fuel cell to the hydrogen fuel tanks.

18. The system according to claim 13, including structural barrier affixed to the front and rear of said trailer unit with the hydrogen tanks between these structural barriers.

19. The system according to claim 11, including the addition of structural barrier affixed to the front and rear of said trailer unit with the means to affix a hydrogen tank between these structural barriers.

20. The system according to claim 11, including the addition of a means affix the
5 hydrogen tubes to said trailer unit.

21. The system according to claim 11, including the addition of means to transport the compressed hydrogen of said fuel trailer to the hydrogen fuel cell located on said tractor of said engine motor to drive the tractor trailer unit to pull said trailer or tanker.

22. The system according to claim 11, including in addition thereto, a trailer of cargo
10 or a tanker trailer is attached to the fifth (5th) wheel of said trailer unit.

23. The system according to claim 11, wherein the fuel cell is a Proton Exchange Membrane Fuel Cell.

24. The system according to claim 11, including in addition thereto, said engine of
15 said tractor is an electric motor.

25. The system according to claim 11, including in addition thereto, a hydraulic pump driven by said engine of said tractor for manipulating the output of said tank of liquid hydrogen.

5 26. The system according to claim 11, including the addition thereto multiple electric motors to drive the tractor trailer unit to pull said trailer or tanker.

27. The system according to claim 11, wherein the hydrogen fuel and said fuel cell are attached on board said trailer unit.

28. The system according to claim 11, wherein the hydrogen fuel is in a gaseous form.

10 29. The system according to claim 1, including in addition thereto, a hydrogen storage system that is cryogenic to produce gaseous hydrogen.

30. The system according to claim 1, including the addition thereto, a hydrogen system that is solid-in-metal hydrides.

15 31. The system according to claim 1, including the in addition thereto, a hydrocarbon reformer to produce hydrogen.

32. The system according to claim 26, including the addition thereto, tanks of hydrocarbon fuel and means to transfer the hydrocarbon fuel to said reformer.

33. The system according to claim 11, including in addition thereto, a hydrogen storage system that is cryogenic to produce gaseous hydrogen.

5 34. The system according to claim 11, including the addition thereto, a hydrogen system that is solid-in-metal hydrides.

35. The system according to claim 11, including the in addition thereto, a hydrocarbon reformer to produce hydrogen.

10 36. The system according to claim 30, including the addition thereto, tanks of hydrocarbon fuel and means to transfer the hydrocarbon fuel to said reformer.

37. The system according to claim 11, including the means for taking electric power off said tractor trailer unit to power a load in said trailer or tanker.

38. The system according to claim 11, including the means for taking electric power off said tractor trailer unit to power a load off board of said tractor trailer unit.

39. A combined system for providing fuel to a single tractor comprising: a single trailer and a fifth (5th) wheel unit with at least two wheels and a fuel supply and a means of attaching said fuel supply to said trailer and a means of providing said fuel to said single tractor.

5 40. The system according to claim 34, including the addition thereto, a single tractor with a limited supply of on board fuel to power the tractor until said tractor is attached to said trailer to obtain a larger supply of fuel.

10 41. The system according to claim 34, including the addition thereto, a single tractor with a limited supply of on board batteries to produce electricity to power the tractor until said tractor is attached to said trailer to obtain a supply of fuel.

 42. The system according to claim 34, including the addition thereto, a single tractor that is a fuel cell and electric motor or motors combination tractor.

15 43. The system according to claim 34, including the addition thereto, a single tractor that is a hybrid electric fuel cell tractor system, comprising: a single tractor having an engine for moving itself and for pulling a single trailer said engine is an electric motor or motors said single tractor and said single *trailer* having together mounted each thereon: